



Split

Work Order ID 64914-2


Wednesday, December 22, 2010 2:59:13 PM



Item ID: D212-725-1-901 Accept  Setup Start 
Revision ID: Stop 
Item Name: COLLECTIVE BELL CRANK ASSEMBLY
Start Date: 12/22/2010 Start Qty: 4.00  Cust Item ID:
Required Date: 1/7/2011 Req'd Qty: 4.00  Customer:
Reference:

Approvals: Process Plan: PL Date: 12/22/10 Tooling: Date: Run Start 
QC: Date: SPC (Y/N): Date: Stop 


Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D212-725-1	Rev G								PTO

100 0.00
 Small Fab
Small Fab

Memo
****Critical Part,MRB decisions on this part may only be performed by DART/DE#02.Any changes to the design,manufacturing process,approved operating enviroment,and design loading spectrum will require a review of the fatigue evaluation for this part*****

SB 11/02/02

- 1- Install sleeve and bearing as per dwg
- 2- Stake bearing as per dwg

110 QC5- Inspect part completeness to step on W/O 0.00
 QC Memo 0.00
Quality Control → Sutorloz
→ inspect bearing assembly to part drawing
Parts were made to Rev G

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D212-725-1-901 PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: / Date: 11.02.07
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR: <u>64914-2</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>11/01/07</u>	<u>100</u>	<u>2 120-015-5A sleeve</u> <u>3 120-013-3A sleeve</u> <u>were scrap</u> <u>because was to big has</u> <u>to fit in the D212-725-1-901</u> <u>just by hand not press-fit</u>	<u>/</u>	<u>- Scrap + destroy</u> <u>- process of manufacturing</u> <u>being revised per attached email</u>	<u>SA</u> <u>11/02/07</u>	<u>S</u> <u>11/02/07</u>	<u>/</u> <u>11/02/07</u>	<u>/</u> <u>11/02/07</u>
<u>11/02/07</u>	<u>100</u>	<u>1 120-015-5A sleeve</u> <u>2 120-013-3A sleeve</u> <u>scraped</u> <u>R&D of manufacturing</u>	<u>/</u>					



NOTE: Date & initial all entries




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Revision ID:						
Item Name:	COLLECTIVE BELL CRANK ASSEMBLY				Stop	
Start Date:	12/22/2010	Start Qty:	4.00		Cust Item ID:	
Required Date:	1/7/2011	Req'd Qty:	4.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120  SprayPaint Spray Painting	Spray Painting per QSI005 4.2 Memo ***Mask bearing prior to prime and paint*** 1- Prime and paint as per dwg <i>pending to 11.02.02</i>	0.00 0.00				<i>11</i>	<i>02</i>	<i>03</i>	<i>(3)</i>
130  QC Quality Control	QC14- Inspect Spray Paint Memo	0.00 0.00				<i>3</i>			<i>11/22/10</i>
140  Packaging Packaging	Identify as per dwg & Stock Location: <i>PSH/ke</i> Memo	0.00 0.00							<i>(3)</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 64914

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Wednesday, December 22, 2010 2:59:13 PM

Item ID: D212-725-1-901

Accept



Setup Start



Revision ID:

Stop



Item Name: COLLECTIVE BELL CRANK ASSEMBLY

Start Date: 12/22/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 1/7/2011 Req'd Qty: 4.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/02/11 DJ

R11-02-4
3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, December 22, 2010 2:59:17 PM

Page 1

Work Order ID: 64914

Parent Item: D212-725-1-901

Parent Item Name: COLLECTIVE BELL CRANK ASSEMBLY





Start Date: 12/22/2010

Required Date: 1/7/2011

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A now made in house DD 10.02.08 verified by:JLM IPP Rev:B as per ECN10-532 DD 10.04.08 verified by:JLM Ipp Rev:C Added "Critical Part"Note 10-06-02 Verified By:DD
 ****Critical Part,MRB decisions on this part may only be performed by DART DE#02.Any changes to the design,manufacturing process,approved operating enviroment,and design loading spectrum will require a review of the fatigue evaluation for this part*****

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
120-013-3A  sleeve		Purchased	No			100	Each	40.0000	1	4			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST381				40					
					113699			40					
120-015-5A  sleeve		Purchased	No			100	Each	40.0000	1	4			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST381				40					
					113699			40					
D212-725-1-007  COLLECTIVE BELL CRANK		Manufactured	No			100	Each	0.0000	1	4			
MS276433  bearing		Purchased	No			100	Each	40.0000	1	4			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				40					
					113673			40					

B 64913

SS 11/02/02

4

SS 11/02/02

4

SS 11/02/02

SS 11/02/02

4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 2

Wednesday, December 22, 2010 2:59:17 PM

Work Order ID: 64914



Parent Item: D212-725-1-901



Parent Item Name: COLLECTIVE BELL CRANK ASSEMBLY

Start Date: 12/22/2010

Required Date: 1/7/2011

Start Qty: 4.00

Required Qty: 4.00

MS276475

Purchased

No

100

Each

40.0000

1

4



bearing

SA 11/02/02

Location

Loc Qty

Loc Code

GA

40

113673

40

4

Wednesday, December 22, 2010 2:59:17 PM

Shop Packet Print

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 61914

8/10-01-3

9
P/N 120-015-5A SLEEVE
SUITED TO FIT BEARING
P/N MS27647-5 BEARING
PRESS FIT

9
P/N 120-013-3A SLEEVE
SUITED TO FIT BEARING
P/N MS27643-3 BEARING
PRESS FIT

D212-725-1-007
COLLECTIVE BELLCRANK

D212-725-1-901 COLLECTIVE BELLCRANK ASSY

CRITICAL PART
MRB DECISIONS ON THIS PART MAY ONLY BE PERFORMED BY
DART DE#02. ANY CHANGES TO THE DESIGN, MANUFACTURING
PROCESS, APPROVED OPERATING ENVIRONMENT, AND DESIGN
LOADING SPECTRUM WILL REQUIRE A REVIEW OF THE FATIGUE
EVALUATION FOR THIS PART.

RELEASED

10-07.31

D212-725-1-007 COLLECTIVE BELLCRANK

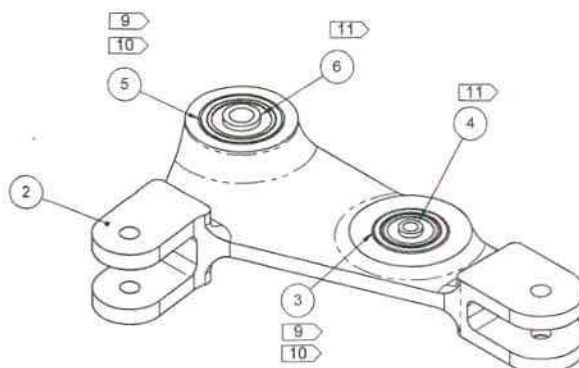
NOTES:

- 1) MATERIAL: 7075-T7351 ALUMINUM
PER QQ-A-250/12
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME YELLOW PER DART QSI 005 4.2
- 3) LPI PER ASTM 1417 LEVEL 2
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: IDENTIFY WITH DART P/N & B/N USING FINE POINT PERMANENT INK MARKER
- 8) WEIGHT: N/A
- 9) SWAGE/STAKE PER QSI 002
- 10) SURFACE FINISH TO BE NO GREATER THAN 80 MICROINCH

DESIGN	DC	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>10</i>	DRAWING NO.	REV. G
MFG. APPR.	<i>21</i>	D212-725-1	SHEET 4 OF 84
APPROVED	<i>10</i>	TITLE	SCALE
DE APPR.	<i>21</i>	212S DETAIL PARTS	NTS
DATE	10.02.12	COPYRIGHT © 2008 BY DART AEROSPACE LTD	

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WRITTEN PERMISSION FROM DART AEROSPACE LTD

ITEM	QTY -901	PART NUMBER	DESCRIPTION
1	X	D212-725-1-901	COLLECTIVE BELLCRANK ASS'Y
2	1	D212-725-1-007	COLLECTIVE BELLCRANK
3	1	120-013-3A	SLEEVE
4	1	MS27643-3	BEARING
5	1	120-015-5A	SLEEVE
6	1	MS27647-5	BEARING



D212-725-1-901 COLLECTIVE BELLCRANK ASSY

CRITICAL PART
MRB DECISIONS ON THIS PART MAY ONLY BE PERFORMED BY DART DE#02. ANY CHANGES TO THE DESIGN, MANUFACTURING PROCESS, APPROVED OPERATING ENVIRONMENT, AND DESIGN LOADING SPECTRUM WILL REQUIRE A REVIEW OF THE FATIGUE EVALUATION FOR THIS PART.

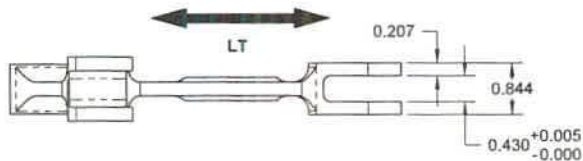
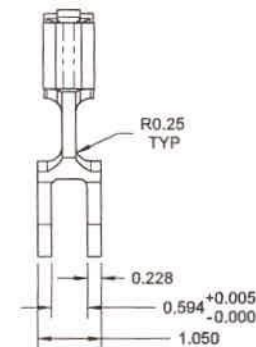
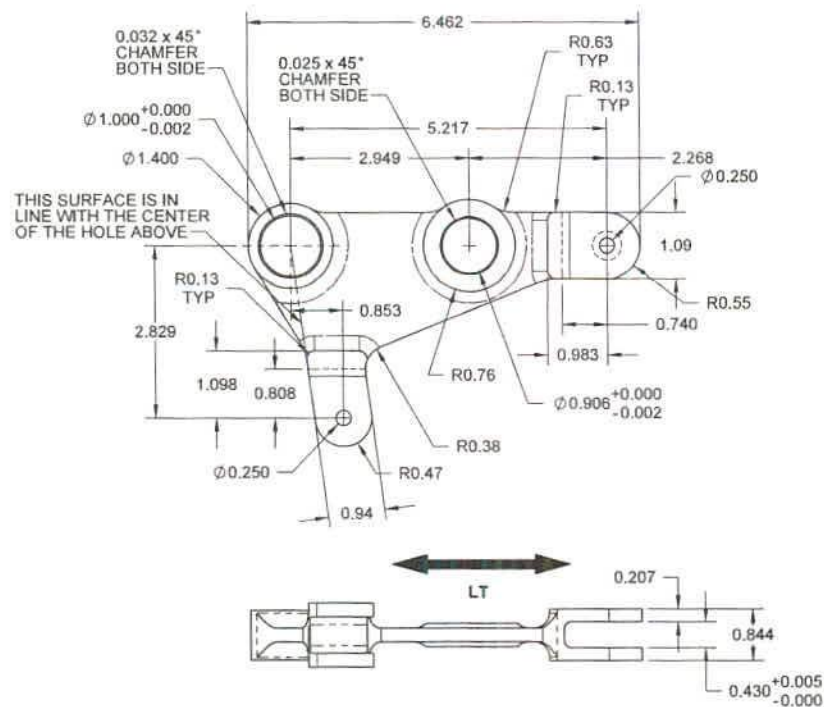
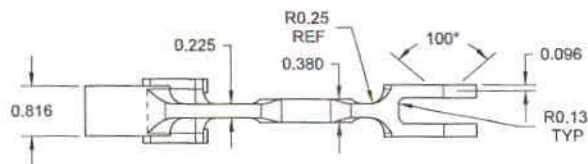
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: PRIME YELLOW PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.68 lbs
- 8) SWAGE/STAKE PER QSI 002
- 9) SLEEVE ID AND OD MAY BE ADJUSTED TO PROVIDE PROPER FIT
- 10) SLEEVE SHOULD FIT INTO BELLCRANK USING FINGER PRESSURE ONLY
- 11) BEARING SHOULD FIT INTO SLEEVE USING FINGER PRESSURE ONLY

PRELIMINARY ISSUE

10.11.08

PA1	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	DC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D4215 REV. PA1 SHEET 1 OF 2 TITLE COLLECTIVE BELLCRANK SCALE NTS <small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. IT IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR LOANED OR REPRODUCED TO ANY OTHER PERSONS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	
DRAWN	RF		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.11.08		



NOTES:

- 1) MATERIAL: 7075-T7351 ALUMINUM
PER QQ-A-250/12
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 016 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER CSI 044 6.1
- 7) WEIGHT: 0.39 lbs
- 8) LPI PER ASTM 1417 LEVEL 2
- 9) SURFACE FINISH TO BE NO GREATER THAN 80 MICROINCH

D212-725-1-007 COLLECTIVE BELLCRANK

CRITICAL PART

MRB DECISIONS ON THIS PART MAY ONLY BE PERFORMED BY DART DE#02. ANY CHANGES TO THE DESIGN, MANUFACTURING PROCESS, APPROVED OPERATING ENVIRONMENT, AND DESIGN LOADING SPECTRUM WILL REQUIRE A REVIEW OF THE FATIGUE EVALUATION FOR THIS PART.

PRELIMINARY ISSUE

10.11.08

DESIGN	DC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		D4215	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		COLLECTIVE BELLCRANK	NTS
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64914

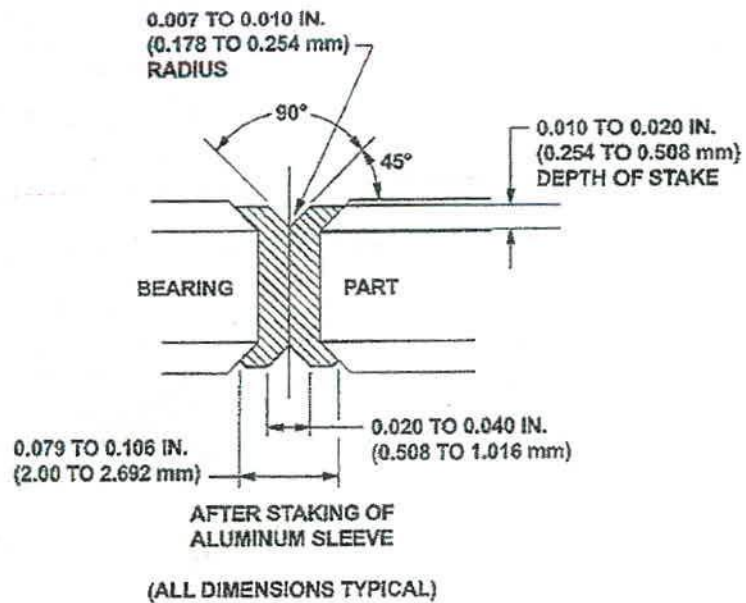
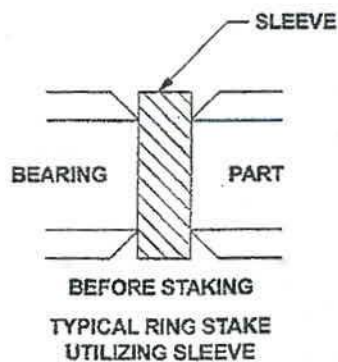
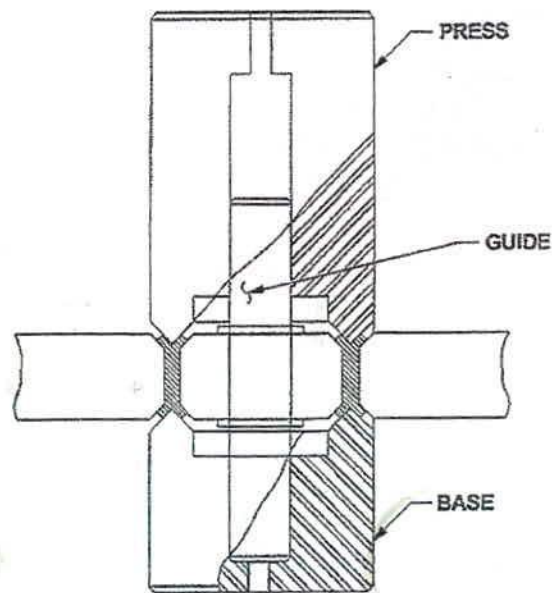


Figure 2 – Typical Ring Stake